

Patent claims

1. A cutting tool for turning and boring into solid material, comprising a drill shank (1) and a cutting head (2) at one end having a straight, front cutting edge (4) running substantially approximately transversely with respect to the drill axis (3), which cuts as far as the drill axis (3) and forms an angle α of less than 90° with the latter, and an adjacent straight lateral cutting edge (5), cutting the wall of the bore, which forms an angle β of more than 90° with a perpendicular (6) to the drill axis (3) and which, in turn, merges into a straight, rear cutting edge (7) which runs approximately parallel to the front cutting edge (4), characterized in that the lateral cutting edge (5) is formed on a section (8) of the cutting head (2) which projects from the drill shank (1) with a height h in the range from at least 5% to at most 40% of the drill diameter d and which has a width b in the range from at least 5% to at most 40% of the drill diameter d , the ratio of height h to width b lying in the range from 1:0.7 to 1:1.3, and in that the rear cutting edge (7) forms an angle γ of less than 90° with the drill axis (3).
2. The cutting tool for turning and boring into solid material as claimed in claim 1, characterized in that the section (8) projects from the drill shank (1) with a height h in the range from 5% to 30% of the drill diameter and with a width b in the range from 10% to 30% of the drill diameter.
3. The cutting tool for turning and boring into solid material as claimed in claim 1 or 2, characterized

in that the front cutting edge (4) runs continuously straight, at least as far as the drill axis (3).

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4. The cutting tool for turning and boring into solid material as claimed in one of claims 1 to 3, characterized in that the front cutting edge (4) forms an angle α of about 89.5° with the drill axis (3).

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5. The cutting tool for turning and boring into solid material as claimed in one of claims 1 to 4, characterized in that the lateral cutting edge (5) forms an angle β , which lies in the region of about 91° , with a perpendicular (6) to the drill axis.

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6. The cutting tool for turning and boring into solid material as claimed in one of claims 1 to 5, characterized in that the rear cutting edge (7) forms an angle γ of about 89° with the drill axis (3).

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7. The cutting tool for turning and boring into solid material as claimed in one of claims 1 to 6, characterized in that the front cutting edge (4) has a cutting edge section (9) beyond the drill axis (3) which forms an angle κ of 5° to 20° with a perpendicular (6) to the drill axis (3).

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8. The cutting tool for turning and boring into solid material as claimed in one of claims 1 to 7, characterized in that the cutting head (2) is an interchangeable cutting insert.

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9. The cutting tool for turning and boring into solid material as claimed in claim 8, characterized in that the interchangeable cutting insert (2) is

5 formed as a reversible cutting plate with a substantially square or rectangular outline having two projecting sections (8, 8') which are located opposite each other in an inverted mirror-image fashion.

10. A cutting insert for use in a cutting tool as claimed in claim 8 or 9.